

REMARKS

The above referenced Office Action has been carefully reviewed. Claims 12-19, 21, 24 and 28 are now canceled. A single new dependent claim 29 has been added.

Claim Rejections-35 USC §103

Claims 1-2, 4, 6-9, 20, and 23 have been rejected under 35 USC §103 as being unpatentable over Langwaldt in light of Ellingson. For the purpose of this response, the Applicant has attached a translation of the Langwaldt reference using the machine translation services provided by the European Patent Office, adding paragraph numbering so that this translation may be cited in the following remarks.

Langwaldt, as noted by the Examiner, appears to describe a dishwasher having a motorized latch that both opens and closes the dishwasher door. This process of motorized closing appears to be described in paragraph [0022] of the attached translation which indicates that after the water vapor has escaped during venting, the hasp (6) is pulled back into its initial position. After this, the door can be re-opened by using the key 9, being a manual release.

Applicant believes, however, that Langwaldt does not fairly teach or enable solutions to problems first identified by the present inventor including the problem of displaced cutlery or other obstructions blocking the closing door (now removed from the direct control of the user) and a problem occurring when the door and closure mechanism are not properly reconnected by the user. As a result, Langwaldt fails to teach two limitations of claim 1.

First, Langwaldt fails to teach:

at least one switch providing a signal confirming engagement of the electric actuator and door, the switch communicating with the timer controller to prevent washing prior to the occurrence of this confirming signal.

Langwaldt does teach a switch detecting retraction of the latch mechanism (see paragraph [0022]) and implicitly a switch detecting extension of the latch mechanism in paragraph [0021], but this does not meet the claim limitation of confirming engagement of the electric actuator and door, as it is apparent that these switches will be activated

whether the door is connected or not.

Second, as agreed by the Examiner, Langwaldt fails to teach:

a force sensor sensing a pre-determined force on the electric actuator resisting closure of the door by the electric actuator caused by an obstruction between the door and the washing chamber to controllably stop closure of the door before the seal position.

It is believed that the reference of Ellingson does not remedy these deficiencies. With respect to the first limitation, the Examiner correctly notes that Ellingson locks the door once it is closed and can sense that the door is closed, but this can be readily distinguished from the present claim language in which the “close position” is not closed but only visually covering the washing chamber before it is sealed, “seal” does not mean “lock” but sealing water within the chamber and sensing the “engagement of the electric actuator and door” can be distinguished from sensing that the door is closed without knowledge of whether an actuator and door are engaged.

While it may be obvious to modify Langwaldt and Ellingson to produce an automatically “locking door” the invention is not a locking door and, in fact, never locks the door which can always be released by the user—in contrast to a washing machine where user access is barred. In short, it is respectfully submitted that the rejection does not properly address the claims as drafted or as would be understood to those of ordinary skill in the art.

Claim 20 has been amended to incorporate the limitations of claims 21 and 24 requiring that the “timer/controller communicates with the electric actuator to delay sealing of the door to prevent surge pressure build up from heating of the newly introduced cold air” when the door is closed after opening of the door during the washing cycle. Applicant can find no teaching of this limitation, which requires the imposition of a delay in automatic closing the door based on certain specific precedent conditions, in the cited references or the discussion by the Examiner.

Claim 26 has now been cast in independent form and amended to clarify that a sensing of a force resisting closure of the door is performed as the door is being closed to reverse the door closing actuator.

Spong, in contrast, considers a magnetic assist in opening a refrigerator door when the user activates a switch that would indicate that the user intends to open the door. This magnetic assist only occurs, however, after a period of time after the door is closed and not as the door is being closed. Spong specifically indicates that when the door is open and until the door has been closed for a period of time, the touch signal is ignored. See process box 38 and 39 of Fig. 2 and the discussion of column 5, lines 52, to column 6 line 7 of Spong. This is not surprising because Spong does not address the problems of automatic door closure. Accordingly, it is respectfully submitted that Spong does not meet the limitation of this claim as amended and further teaches away from this claim of the present invention.

For the reasons provided above, it is believed that claims 1 and 20 and the claims dependent upon these claims including claims 2, 4-10, 22 and 25-27 and 29 are now in condition for allowance and allowance is respectfully requested.

Very truly yours,

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